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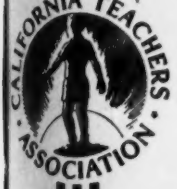

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ARTHUR F. COREY
State Executive Secretary
693 Sutter Street, San Francisco, California

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THE EDITORS SAY:

Research and Mr. Anthony

A FAMILIAR figure on the American scene is the ubiquitous "Mr. Anthony" who, on a popular radio program, counsels the lovelorn and the perplexed. Each week he answers questions which touch upon personal problems affecting the success and happiness of those unfortunates who feel the weight of indecision and discouragement. To our knowledge, no one has ever taken the trouble or time to conduct a follow-up study to determine whether the advice of "Mr. Anthony" is accepted and whether it has alleviated the difficulties and problems which are revealed to millions of radio listeners. Be that as it may, our principal interest is in the popular appeal which leads people to divulge their troubles to a radio counselor and to a radio audience that lends a sympathetic ear.

We do not aspire to become another "Mr. Anthony." However, if we may be permitted to draw a parallel, we suspect that there are many people in the teaching profession who are as perplexed and frustrated as those who seek the advice and counsel of the familiar radio figure. What we are trying to say is that we believe there is need, in California and elsewhere, for research counselors who can supply data and information to help solve educational problems and dilemmas that are associated with and grow out of our complex society. This leads us to an announcement which we hope will interest our readers.

At the suggestion of our editorial board, which consists of twelve capable research people, we plan to introduce an innovation in the January 1953 issue: a "Research Question Box." We do not purport to be able to answer any and all questions relating to educational research. And we are mindful of the Pandora incident and the trouble that ensued. It is our simple desire to serve as a sort of clearing house through which our readers may secure help and advice on problems that lend themselves to research. We, in turn, shall not hesitate to call upon those who are recognized as authorities in their respective fields to "double" for our research "Mr. Anthony." We have such promise of help and we plan to make good use of it.

The success of the new feature will depend upon the extent to which our readers make use of the "Research Question Box" and the reasonableness of the queries. "Mr. Anthony" would have few listeners on the radio if people were reluctant to seek his advice. We await the reactions of our readers to the new feature. What are your questions?

Some Issues in Educational Research

G. T. Buswell
University of California, Berkeley

Research in any field of scholarship changes from decade to decade. If the field is new, as was the case in Education in 1900, research consists largely in the systematic gathering of facts and in the development of instruments and techniques. As the facts in a field become organized, specific problems begin to emerge which can then be studied by methods much more effectively designed than were the techniques employed in the earlier stages. To the extent that research is successful, it results in a body of generalizations or principles which make possible a higher level of understanding than can be derived from a body of raw facts. As research in a field matures, it makes possible a formulation of theoretical explanations and permits predictions based on well established principles.

A Good Beginning

In the year 1950, as compared with 1900, one can find all levels of achievement represented in educational research. The body of factual data now available is quite impressive, although the state of its organization leaves much to be desired. However, there has certainly been a strong initial movement in educational research. At the mature level much less has been attained and the list of well founded "principles of education" is short indeed. There are still major areas in education (for example, personal-social relationships) where the major need is for more factual knowledge. But there are other areas, such as the nature and measurement of intelligence and the psychology of learning, where substantial beginnings have been made at the theoretical level.

Frontier Problems

A healthy state of research in any field requires two levels of study. The first level is concerned with frontier problems often not clearly

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Dr. Guy T. Buswell is admirably qualified to prepare the feature article for this issue of the journal. He has been very active in the American Educational Research Association for many years and is currently president-elect of the organization. An international authority in the field of reading, Dr. Buswell taught for 30 years at the University of Chicago. He is now a member of the staff of the school of education, University of California, Berkeley.

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formulated but always related to what seem to promising areas of development. These problems are the main centers of interest when professional groups gather and their study requires the highest ingenuity, in respect to both hypotheses and techniques, which can be brought to bear on them. These frontier problems are often reflected in the popular interest of the times. For example, from 1915 to 1925 the popular interest in education was in individual differences and educational measurements, and the research in these areas consumed a large part of the total research energy. In the ensuing decade, when the Progressive Education Association was at the height of its influence, studies of personality development occupied the center of interest, although the actual amount of research done in this area was very much less than was done on intelligence testing and individual differences. From 1935 to 1950 the child development movement has been a high point of interest and a number of centers of research have attacked problems in this area. While the three examples cited represent high points of interest, there have been other lines of research in administration, curriculum, and methods in which certain problems have emerged as temporary centers of attention.

Hazards in Pioneer Research

Pioneer studies are necessarily carried on in ways that do not satisfy mature criteria for excellence in research and the first outcomes of such studies are seldom satisfactory. Two hazards are encountered in this kind of frontier research. One of them is that competent men in the field will reject the studies on the ground that the techniques are questionable and that the results fail to measure up to the usual standards for research. A great deal of patience is necessary on the part of professionally mature persons to examine these pioneer studies carefully enough to distinguish those which really possess merit from those which are merely amateurish attempts by persons who have never taken the trouble to be competent in the techniques which are employed. Some promising leads are doubtless killed by over-criticism when the first reports appear. On the other hand, there is an equal hazard that lack of criticism will allow worthwhile lines of research to become accepted and popularized before they are developed to the point where they deserve recognition. An example of the hazards of over-popularization is furnished in the early history of intelligence tests where the development of a valid measure of mental ability was retarded by the uncritical enthusiasm for the results of pioneer research in the years immediately following the first World War.

Follow-Up Research

While popular interest generally centers around pioneering studies

such as have been discussed in the previous paragraphs, there is another type of research which is equally necessary if any field is to be developed fully, namely the kind of research which follows up and refines initial investigations. This kind of research is necessarily more limited in its scope, requires a higher degree of specialization, and is subject to the danger of over refinement. Such studies are necessary for verifying the results of earlier investigations, for enlarging the area of sampling, and for increasing the precision of research. The main requirement in this type of study is the setting up of such careful designs that the hypotheses studied are tested effectively. Such studies are usually related more directly to problems of a theoretical nature, whereas pioneering studies are more often related to the necessity for gathering and organizing facts in a new area. While studies of this latter type are necessary and important, it is the opinion of this writer that, at the present time, there is a greater need in the field of education for some ingenuity in devising new techniques for dealing with frontier problems than for the expenditure of so great a part of the available energy in repetition and verification of earlier studies. The last decade has witnessed very few really new ideas in the field of educational research.

Genetic Development Required

If more pioneering is needed in educational research how does one go about starting research on frontier problems; how are new techniques and instruments for research discovered? It is not enough simply to identify problems and to state that there is a need for research. It is important to recognize that there is a genetic development of techniques and methods in research just as in other types of human activity. Good techniques of research are not picked full grown out of the air. What we do now must be built upon what has been done, but it must go beyond what has been done. It is important that the researcher familiarize himself with what has already been done in the area of his interest and that he understands fully the methods and techniques which have been employed in the study of such problems. Educational research furnishes many examples of the genetic development of techniques over a period of years. For example, when standardized tests were first devised the statistical techniques available were simple. In the forty years that have elapsed since that time, the development of statistical methods has made possible a type of test greatly superior to those which were made around the year 1910. The point of significance here is that while the research worker may have a high desire to find new truths that will fit into recognized needs, his success in so doing is conditioned by the state of techniques and methods available at the time his research is carried on. In many cases there is necessarily a slow painstaking development of

techniques which cannot be devised all at one time. The original eye-movement studies made by Javal, in which he attached a mechanical marker to the cornea of the eye and recorded the movements on a revolving smoked drum, are a far cry from the effective techniques which are now used for recording eye movements. Yet those familiar with this field of research know that the present effective methods did not emerge suddenly, but rather are a result of a series of minor changes in apparatus and technique over a long period of years.

Research must always be done in terms of the techniques available at the time that the study is made, but continuous improvement of techniques are necessary for advancement in research. Ingenuity in developing new techniques generally arises out of dissatisfaction with and criticism of the current techniques. The best hope is in continuity of improvement, not in a sudden revelation. There is an evolution of techniques of research. The future of research will be more promising if students can be persuaded to study the previous literature of research and then to try to improve upon techniques and methods which have already been tried. It is one of the delusions of our generation that new truth is likely to be found by some sudden miraculous appearance to bright young minds of knowledge which has heretofore been denied mankind. There is certainly every reason to look for bright young minds, but there is more hope through disciplining these minds through careful study of previous research than in expecting the sudden occurrence of new truths with no background whatever.

Cooperative Research

There is at present a widespread faith in the effectiveness of "cooperative research." In fact, cooperative research has become one of the slogans of our generation. There are many advantages in cooperation and yet the literature on this kind of effort reveals a decided blindness regarding some of its possibilities. There are many possible kinds of cooperative effort. The advantages of cooperation vary with the stage of the research being undertaken. In the discovery and definition of problems, cooperation often contributes important results. Likewise in criticism of research procedures there are gains from the cooperative assistance of competent people. However, there is no gain from a pooling of ignorance. The advantages of cooperation depend upon what each individual member of the cooperating group has to contribute to the total project. The explicit trust in what a committee or a conference can do in discussion is emphasized out of all proportion to the gain that can be made from cooperating in a longitudinal fashion with research workers who have previously worked on the same problem and the results of whose studies are available, not through the physical presence of the

researcher in a committee meeting, but through the carefully prepared reports of their investigations in the published literature. The difficult thing to accomplish at the present time is to persuade students to take the time to read the research literature which is already available.

Preparation of Research Workers

We are now paying a high price for some of the teachings of the last few decades that have centered around the word "progressive." Many students seem to feel that nothing from the past is worth examination and that the present generation has within itself all the resources that are necessary for carrying on research. However, something more than a desire to do research is required if significant research is to be done. There must be some preparation for it; there must be some familiarity with techniques which have been used; there must be some familiarity with the kind of problems that have been studied and the kind of successes and failures that have already been achieved. There must be a training that gives some actual experience in the gathering and interpretation of data. There must be a breadth of knowledge in the field of education to provide background for judging the significance of problems that are to be studied.

The profession of education has not faced up to this problem of preparing research workers. Both in our graduate schools and in research organizations in public schools and state departments of education there must be a re-examination of what is needed to produce effective research workers. The outcomes of educational research depend on the level at which such work is done and on the available personnel for doing it. There is a place for fact-finding research. Facts are always derived from particular, concrete situations. In most of the reported fact-finding research the sample from which data are gathered is relatively small. It is impossible to make broad generalizations from such restricted samples. However, the facts so derived may be of value in the local situation. It is certainly better to have the facts than to proceed on the basis of unsupported opinion. However, if research is to be really effective it must so broaden its scope so that eventually education may have the benefit of general principles which can serve as a guide to practice. This means that research must be pushed from the level of local, limited studies to studies which are broad enough in scope and sufficiently well designed to permit generalizations of high order. Local studies can be made by persons with relatively limited training, provided they are careful, accurate and honest. For the broader research that leads to theoretical outcomes a very much higher level of training is necessary. It is difficult to design studies which will lead to broad generalizations. Yet, at the high theoretical level, such research must be the basis for the principles which are needed.

Basic Research Needed

If education had answers to some of these larger questions, school practices could be formulated with much greater assurance. For example, we do not yet have a sufficient body of research to give a final answer to relation of heredity and environment in respect to mental ability. Until we get such an answer, schools proceed rather blindly. In some cases they try to adjust their practices to mental ability as measured; in other cases they operate on the assumption that mental ability results from educational experiences and therefore the school can develop mental ability. The truth about this issue is susceptible to research at a high level and with sufficiently broad scope, but it has not yet been forthcoming. Again, in the field of methodology there are probably several good methods for teaching most any subject or activity. If the outcomes of learning can be agreed upon, it is possible through properly formulated research to arrive at an answer as to the relative merits of various methods of teaching. At present there is conflicting evidence in regard to most methods, due largely to the fact that studies of methods have been limited in respect to design and sampling. The proper procedure is not to fall back on opinion, but rather to improve methods of research so that truer answers can be found. Likewise, in the field of school administration, studies of class size have been carried on for several decades. The pioneer studies tried to answer the simple question as to what size is most desirable. No answer to that question can be reached apart from other factors which entered into the situation. Consequently more elaborate designs of research must be set up which take into account different modes of learning, differences in desired outcome, different methods of teaching, different kinds of equipment, and so forth. The eventual answers should be clear within the general framework of conditions set up. Here then are examples of problems where high level research rather than pioneering research is required.

Research Personnel Sources

The accomplishments of educational research depend upon the personnel that is available to do it. Research is done by individual persons. They may cooperate with each other in groups, or they may cooperate with each other longitudinally by making use of contributions of men who have previously worked on the same problem. However, in the last analysis, it is an individual mind in each case that must generate new ideas. To be effective these persons must be competent; they must have some training; they must know what research is. Research must go beyond the level of immaturity. It must have some coherence and theo-

retical consistency. The outcomes must eventually be high level generalizations which may be applied to problems of education.

Where may research people be secured at the present time? One thinks first of the graduate school as a main source of supply. Yet within recent years things have happened in our graduate schools which have greatly lessened the emphasis on research as compared with what was formerly the case. Bad as many of the former master's theses were, they at least gave students some notion of what was involved in an attempt to find truth, even in a very limited field. They did give some training in regard to the nature of evidence and the meaning of objectivity. They gave some notion of the scientific controls that were necessary in an experiment if the results were to be valid. The substitution of a seminar paper for a thesis, or in some institutions a substitution of an additional course, does not provide an adequate basis for training in research. Admittedly there are some students who are served better by an additional course or by writing a paper which summarizes the literature of the topic than by attempting to prepare a research thesis. However, many students who do have the ability to do research and who would be interested in so doing were they urged in the master's program to do so, now take the other pattern just because it is the easier and quicker way toward a master's degree. At the doctor's level the situation is affected by the master's program. Students who would otherwise get some preliminary training in research at the master's level now do their first major research as their doctor's dissertation and results frequently show the sad results of lack of experience with the techniques of research. If the achievements of research are to be substantial, our graduate schools need to think through again the kind of training which students are receiving. Our graduate schools of education give verbal adherence to a program of research, but training for research is often reduced to what can be given in a single short course and to the reading of some research literature. The main source from which young research workers are derived has shrunken considerably in the last two decades. It is not an accident that our journals of education are filled with discussions based on opinion rather than with the results of research. It is the logical outcome of educational policies which now characterize many of our graduate departments of education.

A second major source of research workers comes from faculty members in departments of education of universities and colleges. Most of our most valuable research literature has developed from long-term studies by members of college and university faculties who have carried on their research as a part of their academic assignment. Their work not only results in research of importance, but it also serves as an excellent means of training students through letting them assist in various aspects of research projects, thereby seeing how research is carried on.

Much research is still carried on in educational institutions by members of teaching staffs, but often in the face of distractions from other activities which encroach more and more upon the time needed for scholarly study and research. The actual percentage of total time that college teachers of education spend on research is pitifully small.

Some of the most impressive achievements in educational research have come from institutions where members of the faculty have been able to carry on, over a period of years, studies of particular problems. The genetic studies of genius at Stanford, the series of studies of child welfare at the University of Iowa, and the long series of studies of reading at the University of Chicago, furnish examples of the value of long-term institutional research programs. Some institutional cooperation in research problems might make even more effective some of the attacks on major problems of education.

In-Service Research Important

There is a third source from which a rich supply of new data should come, namely, from in-service research centers. Many school systems have on their staffs persons who by experience and training are competent to carry on research. Furthermore, these persons have direct contact both with learners and with curricula which bring out situations needing study. They see educational programs in action. With the leadership of a competent superintendent or supervisor, such in-service centers are in key positions to carry on studies which will add to the fund of knowledge and understanding about education. Two types of studies are particularly appropriate for such in-service groups; first, those which attempt to deepen our insight into the thinking processes carried on by pupils at successive levels of maturity; second, experimental testing of curriculum units to supply objective evidence of their effectiveness. Such in-service agencies of research have hardly been tapped and they are potentially rich sources for new research. Incidentally, such research activities are also excellent ways to vitalize the interest of teachers. Some of the city and county research organizations in California are fine examples of effective in-service research.

Future of Research

The future of educational research depends on the clearness with which research problems are seen. It depends upon competence in developing techniques which are suitable to the problems studied. It depends upon cooperation among scholars on an intellectual rather than a business level. It depends upon whether the persons who control research actually participate in it, or whether the patterns for research are to become those of the landlord where the jobs are farmed out to technicians and the

results are sent back to the absentee director. The practices of some of our large foundations in this respect are matters of some concern. The expense of overhead in both personnel and money between the source of the appropriations for research and the man who actually does the job is becoming alarming. The future for research depends on an overall spirit of inquiry, on a genuine interest in extending the borders of knowledge about education, and on a person's ability to feel intellectual exhilaration in doing research.

Research Improves School Services

There is a tendency in some quarters to think of research and service as two separate categories of educational activity. The present writer can in no sense accept this dichotomy. One of the greatest services that anyone can render to the cause of education is to carry on research which results in new truth for the guidance of educational activities. The researches on frequency of words in written vocabularies have contributed a new basis for spelling vocabularies and have been a service to teachers everywhere. The findings of research that, in general, abilities are correlated positively have given a new outlook for dealing with exceptional children and have corrected an age-old belief that abilities are compensatory and that a bright mind is usually accompanied by nervous instability and poor health. The researches in test standardization have made it possible for teachers anywhere to compare results attained in their own classes with samples not only on a national level, but selective samples from various types of school systems. The teacher in the smallest hamlet now has the means of evaluating the outcomes of her teaching. Examples such as these show the widespread usefulness of educational research. If one wishes to spread the effects of his services to broad areas rather than to a single locality, competent achievement in educational research offers him his number one opportunity.

Announcement

The editors and the editorial board of this publication take pleasure in announcing that a new feature, "Research Question Box," will appear in the **Journal** beginning with the January 1953 issue. Questions, especially those pertaining to California, will be welcomed and should be sent to the editors, **California Journal of Educational Research**, 693 Sutter Street, San Francisco 2, California.

Prestige and the School Administrator

W. Craig Thomas
Compton (California) College

MOST persons desire fervently to be judged by what they can do, by their competence on the job. Just as fervently, they wish they might rule out or ignore the frequently annoying, confusing, time-consuming demands of human relationships. But in a society like ours, human relationships play a major role.

For example, few school administrators are employed or discharged on the single basis of professional competence. Between employment and discharge lies a whole range of less-than-success and not-quite-failure in which strict professional competence plays only a part. Social and psychological bases, growing out of human relationships, enter as determinants of an administrator's ability to obtain or retain a position and of his overall executive effectiveness, however well he may be qualified educationally. One of the more important of those bases is prestige, or status, in the community, and the complex of interrelationships which establish, measure, and maintain it.

In 1949, the present study attempted to discover the factors which affect the school administrator's prestige through the use of a carefully planned questionnaire consisting of 62 multiple-choice questions (262 separate items) to approximately 100 parents of sixth-grade pupils in each of twelve small, medium, and large communities in six states which had maintained the highest standards for the administrative credential in their geographical region for a period of at least ten years. The questions were designed in terms of a series of factors synthesized from available literature in the field of leadership and leader-prestige. The returned data were tabulated on the bases of size of community, location, income, educational level, occupation, sex, age, and native or foreign background.

In spite of such differentiations, the general reactions expressed through the data from all communities in all geographical regions were in remarkable agreement. From those reactions, certain conclusions of significance to the school administrator can be drawn, although pioneer value-judgment studies are open to considerable variation in interpretation.

W. Craig Thomas, for the past two years, has served as director at Compton College, Compton, California. He had formerly taught at Arizona State College, Oceanside Junior College, and Long Beach City College. He obtained his Ed.D. degree at the University of Southern California in 1949. The present article is a digest of his doctoral dissertation.

Leadership grows directly and finally out of membership in the group. Even positional leadership or imposed leadership from outside must eventually fail unless the understandings, methods, and goals of the leader can be identified by members of the group with their own understandings, methods and goals. Furthermore, what the leader thinks of himself and his acceptability, of his office and its authority, and of his activities and their value, is not nearly as important as what the group he seeks to lead thinks. Both sociologically and practically the reactions of group members have validity that may not be ignored safely, regardless of what the would-be leader regards as the truth or falsity of those reactions. This is particularly true if the leader desires his leadership to be effective and relatively permanent.

By the very nature of his professional office and the usual method of transfer and advancement toward it, the school administrator is seldom in a position to be accepted at once, sociologically speaking, as a member of the community-group, however much he may be "rushed" by special interests. He enters the community as an outsider without an understanding of or the right to participate in the delicate balance by which the hierarchal social structure of the community is maintained. His own feelings regarding such participation may be mixed and therefore dangerous if he attempts to press his own relationships, personal or social. At the same time, he finds himself within the innermost circle, closely identified with the objects of the most dynamic value-judgments of the community-group—its children.

Administrative Requisites

Thus, the school administrator has a major and difficult task to perform. First, he must recognize, understand, and—most important—accept the peculiar nature of his position. In spite of the comfort and safety he may feel in the largely routine, clerical, or even specialized tasks of school administration, he should delegate such tasks to expert employees and devote the greater part of his time to becoming essentially a member —not the leader—of the community-group by seeking out unobtrusively and participating in the intricate interrelationships of the community, and thereby understanding and utilizing them for the benefit of the schools.

Becoming a member and participating in the activities of the group demand energy, patience, and tolerance. But only in this way can he really lead; only in this way can he supervise intelligently the formulation of objectives, the methods, and the program of his phase of public education, and act in fact as the liaison officer between the schools and the community which maintains them.

Second, he must take into serious account and capitalize upon the willingness of persons in the community—a willingness shown unmistak-

ably in the data—to let him use his own judgment and the judgment of his experts in attempting to solve the problems which affect the schools and their interaction with the community as well as his relationship to both. Many school administrators sadly underestimate their freedom in this regard. Responses to the questionnaire indicated some confusion as to where the school administrator should be placed on a status scale. The level of that placement obviously would affect the acceptance of his judgment. Although his position is indigenous to the American community and has achieved historical status-outlines, not much is known about the position itself by the general public.

Even so, there was marked liberality in the answers to questions dealing with whether or not the administrator should use his own judgment. This expressed liberality is of inestimable value to the school administrator who earnestly desires to further public education. His leadership here is a positional leadership and is unquestioned unless his inability to maintain prestige in other areas of his relationships brings pressures to bear on his handling of school affairs.

Third, and finally, he must listen, comprehend, explain, and communicate constantly in all available ways to the community the purposes and activities of the schools, their importance, the reasons both for their problems and for what they seek to do, their cost and their needs.

It is not enough for school administrators to put on a whirlwind campaign of information and indoctrination in the last moments before a bond election. Nor is it enough to point, as so many school administrators do, to alleged public indifference. Because of the general uncertainty regarding the placement-status of the school administrator, the lack of real knowledge of his position, and the enormously increasing complexity of public education in all its aspects, public indifference toward the schools may better be called public ignorance. Few persons enjoy displaying their lack of knowledge. No intelligent and forward-looking response can be had from a public that knows only a part of the story, and that part at the last minute, or carefully selected and edited for public consumption. Moreover, no one may be held responsible for that which he has had no opportunity to learn.

The schools belong peculiarly to the public in a way unmatched by any other social institution or agency. The schools belong to the public because they are only, but completely, the expression of the unfulfilled longings of the race, the centuries-old ambitions of men and women who conceive and bear children and train them that their own efforts, purposes, and sacrifices may be given meaning.

Improvement of A Psychology Course Through the Use of Student Evaluations

HENRY CLAY LINDGREN
San Francisco State College

THE purpose of this paper is two-fold: (1) to describe how student evaluations were used by one instructor in improving the teaching methods and instructor–student relationship in a new and experimental college freshman psychology course dealing with personal and social adjustment, and (2) to encourage other educators to conduct similar studies of the effectiveness of their educational explorations.

Method

During the academic year 1947–48, the lower division requirements at San Francisco State College were modified by the faculty on the basis of a study of student needs. As a result of the change, 45 of the 60 semester units in the lower division were designated as the lower division requirement of the college and were assigned to what was termed the General Education Program. The psychology department received six of these units to be used in developing a two-semester course dealing with problems of mental hygiene and human relationships, with special emphasis on selecting an occupation. The resulting course was entitled "Personal and Occupational Development."

During the first few years of teaching this course, the content and methods varied markedly from instructor to instructor and semester to semester. However, there was somewhat general agreement that the first semester was to focus on personal adjustment and the second was to be concerned largely with problems of occupational choice. Other than this, each instructor was encouraged to develop curriculum and techniques on an experimental basis and to share his findings with his colleagues. Out of this rather disorganized beginning, a course has developed which, though

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Henry Clay Lindgren is associate professor of psychology at San Francisco State College, where he has taught for the past five years. His prior professional experience includes junior high school teaching in Hawaii, language teaching in a military academy, counseling and guidance work in the Veterans Administration, and associate editor of California Journal of Secondary Education. *His Ph.D. was earned at Stanford University in 1942.* *His article is based on a paper which was presented at the 1952 Conference of the California Educational Research Association last March.*

still somewhat experimental and tentative, is doing a better-than-average job of meeting student needs according to impartial surveys of student opinion.

As one of the instructors in this educational experiment, the writer was much interested in learning whether he was meeting student needs. In order to obtain an honest and objective evaluation of the course and his methods, he used to device of the anonymous student evaluation questionnaire administered at the end of the semester. He has followed this practice each semester since the fall of 1949, with the exception of the spring of 1950, when he was prevented by illness from carrying out his plans.

Basically, the questionnaire consists of two parts — a structured and an unstructured portion. In the first section, the student is asked to rate various aspects of the course, as well as the course as a whole and the effectiveness of the instructor, on a five-point scale ranging from 5 (excellent) to 1 (unsatisfactory). In the second section, the student is asked to list the things he likes best and the things he likes least about the course.

The unstructured portion of the questionnaire provides an opportunity for the student "to say what he really thinks." It would be better, of course, to administer this portion of the questionnaire on a different day, because filling out the first portion probably encourages mind-set in that it suggests items to be listed as "like best" and "like least." However, the two parts are given together as a compromise in favor of expediency and ease of administration. An even better way of eliminating bias would be to use a questionnaire of the incomplete sentences type (1). However, a serious drawback to the latter approach is that results are difficult to quantify.

The questionnaire is always presented to the class just before the final examination. (Inasmuch as the final examination is given during the next-to-the-last meeting of the class, the final class meeting may then be used for discussing the results of the evaluation as well as the examination.) When the questionnaire is administered, the instructor comments upon the importance of answering questions frankly and honestly and describes some of the changes he has made in the course as a result of previous student evaluations. Nevertheless, in spite of these admonitions, a "halo effect" tends to operate as shall be seen later.

Observations and Implications

The writer employed this method of evaluation primarily as a means of checking on student acceptance of certain techniques and curricular innovations. He has continued the practice of student evaluation partly with this in mind and partly because he interprets the change in numerical ratings from semester to semester as a rough index of his teaching efficiency.

As an example of the first usage, the instructor stopped using sociodrama as a teaching technique after a two-semester trial because it received low ratings, although his own feeling when this technique was employed was one of mild success. As a result of the rating, the instructor concluded that he probably needed additional training and experience in this modality, although it may have been that the technique was used properly, but at inappropriate times and places. At any rate, after low ratings for two semesters it seemed wise to drop it for awhile.

Another instance of the way in which the instructor received direction from student evaluation is the retention of group projects as an instructional method. In the course of sitting through numberless group reports, the instructor has often wondered about their value to the individual student. However, students do tend to regard them as valuable experiences as is revealed by the relatively high ratings they assign to "Group Projects." (See Tables I and II.) Hence the instructor continues to employ this means of instruction.

This points up another advantage to ratings; they offer an opportunity to compare the relative value assigned by students to a variety of instructional techniques. Even though the "halo effect" may operate to raise or lower all ratings assigned by a certain class, it seems reasonable to assume that students consider those aspects of the course most effective which are ranked the highest and those aspects least effective which are ranked the lowest.

With regard to the second purpose of the instructor — that of looking for evidence of improvement (or otherwise) from semester to semester— an examination of Tables I and II would appear to indicate a trend.

TABLE I

STUDENT EVALUATIONS OF FIRST SEMESTER COURSE IN FRESHMAN PSYCHOLOGY

Factor Rated	Fall 1949 N = 72	Fall 1950 N = 64	Spring 1951 N = 51	Summer 1951 N = 27	Fall 1951 N = 46
Lectures	3.5*	3.5	3.3	4.3	**
Discussions	3.6	3.35	4.0	4.6	3.75
Written Assignments	3.2	3.4	3.4	4.3	3.3
Group Projects	**	3.5	3.6	4.1	3.8
Sociodrama	2.9	**	3.2	**	**
Examinations	2.8	3.7	4.0	4.1	3.3
Effectiveness of Instructor	3.9	3.8	4.1	4.8	4.15
Value of Course	3.5	3.6	4.0	4.6	3.7
Mimeographed Text by Instructor	**	**	4.0	4.6	3.7
Psychology and Life by Ruch	3.2	2.9	3.1	3.1	2.4

* Ratings are interpreted: 5 - excellent, 4 - good, 3 - average, 2 - fair, 1 - unsatisfactory.
** Not used this semester.

TABLE II

STUDENT EVALUATIONS OF SECOND SEMESTER COURSE IN FRESHMAN PSYCHOLOGY

Factor Rated	Spring 1951 N = 20	Summer 1951 N = 13	Fall 1951 N = 24
Lectures	3.3*	**	**
Discussions	2.75	4.5	4.5
Written Assignments	3.0	3.9	4.1
Group Projects	3.3	3.8	4.2
Studies of Occupations	3.5	4.0	4.1
Examinations	3.5	3.5	3.8
Effectiveness of Instructor	3.75	4.8	4.7
Value of Course	3.25	4.3	4.0
Mimeographed Text by Instructor	**	4.4	4.4
Other Texts:			
Hepner	2.25	**	**
Ruch	**	3.4	2.7
Mimeographed Readings	3.6	4.0	**

* Ratings are interpreted: 5 - excellent, 4 - good, 3 - average, 2 - fair, 1 - unsatisfactory.
** Not used this semester.

There is an apparent increase in ratings with the passage of time, although this trend appears to be partly negated by a decline in first-semester-student ratings in the fall of 1951 (Table I). The probability of the upward trend being a genuine one is indicated by the ratings assigned Ruch's *Psychology and Life*, which are virtually unchanged for the first four semesters, while the ratings of other aspects of the course show an increase for the most part. Since Ruch's text remains the same from semester to semester, while other factors are liable to change, it is thus possible to use the rating assigned Ruch's text as a sort of baseline against which the ratings of other aspects of the course might be compared.

At best it may be said that the changes in ratings during the first four semesters reflect an over-all improvement in teaching effectiveness or, at the very least, an improvement in the relationships between the students and the instructor. Inasmuch as the rating of Ruch's text drops markedly during the fall of 1951, it may be further hypothesized that this decline reflects the "halo effect" resulting from a less satisfactory relationship between students and instructor. This is further substantiated by the clinical judgment of the instructor who felt that his relationships with his classes in first-semester psychology during the fall of 1951, while more or less satisfactory, were not as satisfactory as were his relationships during the previous term, nor even as satisfactory as they were with the second-term class he was instructing the same semester. One hypothesis which may account for this difference is the higher proportion of veterans and other mature students in classes during the summer of 1951 and in the second-

term class during the fall of 1951. However, this explanation does not eliminate the probability that the instructor actually *was* less effective with his first-semester class during the fall of 1951. In other words, if the immaturity of the class *was* the chief factor in the lower rating, this should indicate to the instructor that he may need to modify his approach to classes in which younger students predominate. In any case, these statistics highlight the fact that ratings can reflect variability in classes as well as variability in instructors.

Some instructors who use a similar technique of evaluation find that when they use the questionnaire in the middle of the semester, it serves to improve morale of students by giving them opportunities to become involved in the planning of the course. Instructors report that students gain a feeling of status, because they feel that the instructors think well enough of their opinions to ask for them. Castore and Berrien describe how they used student evaluations in this way in improving student morale in a course similar to the one described in this paper (2).

However, the most important reason for making a survey of student opinion is the desirability of the instructor's being accurately informed as to the attitude maintained by the class toward the course, the instructor, and the methods of instruction.* The importance of motivation as a factor in learning is accepted by adherents to every theory of learning; without motivation, there is no learning. It thus appears highly desirable for instructors to make use of anonymous student evaluations as a means of assessing the motivational field as it exists in their classes. It would seem as important for the instructor to measure this aspect of the learning situation as it is for him to measure the gain in knowledge.

And, last but not least, it would appear that the implications of this paper would apply equally to instruction in subjects other than psychology and to educational institutions other than those of the college level.

Summary

The writer reports success in using anonymous student evaluations as a means of measuring student acceptance of various instructional and curricular innovations in an experimental course of freshman psychology. By having students assign numerical ratings to various aspects of the course, it is possible to compare (1) their relative acceptance of the course, and (2) the improvement or deterioration in instructor–student relationships from semester to semester. Inasmuch as the chief basis for learning is

(Continued on page 223)

* For a description of student evaluation as used in other colleges, see Mueller (3) and Green (4).

Guidance Practices in the Elementary School

E. Leo Waian
Burbank City Unified School District

MUCH interest is being taken currently in the principles and practices of elementary school guidance. Until very recently, only such rare studies as that made by Gordon (1) in 1929 threw any light on the subject. A few school systems had an organization for counseling in the elementary schools, but the practice was not widespread. It was only within the last two or three years that the colleges and universities of the West began offering courses on guidance in the elementary school.

Between the time of Gordon's study and the publication of the Los Angeles County Schools *Guidance Handbook for Elementary Schools* (2) in 1948, there was only a smattering of literature on the subject.

In recent months, a number of publications have appeared. Among others, Cottingham (3), Martinson (4), and Segar (5) have written on elementary school guidance in periodicals, and Hatch (6) and Willey (7) have compiled books, the latter giving the most comprehensive treatment of the subject so far.

Although these many manifestations of interest are heartening, there is still much to be done in research in the field of guidance in the elementary school. The writer made a rather comprehensive study because he accepted the idea that the aim of guidance in the elementary grades is that of helping in the total adjustment of the normal child. "The general aims of guidance are broad. They include assisting children to understand themselves and their problems, to make good use of their personal and environmental resources, and to choose and plan wisely in order that they may deal successfully with their problems and make satisfactory adjustments now and later." (2, p. 120).

Scope of the Study

Through an analysis of questionnaire responses, interviews, and reading, data were gathered on (1) what is thought desirable; (2) what is

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E. Leo Waian is an elementary principal in the Burbank Unified School District, where he has taught since 1935. *His professional experience has included teaching on all school levels, as well as administration. He earned his Ed. D. at Oregon State College in* 1952. *Dr. Waian's article is a digest of his doctoral dissertation.*

actually being done; and (3) what needs exist for further improving elementary guidance. The study was made under ten headings:

1. Administrative provisions for individual differences.
2. Providing for mental health.
3. Developing physical well-being.
4. Guiding social growth.
5. Access to professional services.
6. Use of community groups.
7. Cooperation of home and school.
8. Securing, recording, and using data.
9. Organization of the guidance program.
10. Evaluation of the guidance program.

Since practices are often limited to what is expedient, it was decided not only to inquire into practices, but also to get opinions on what is desirable regardless of the practice. It was also decided that in making the survey, the emphasis would be placed on the role of the principal, for he is the key figure in the elementary school guidance program. Some classroom teachers were included in order to get their point of view.

Responses to the Questionnaire

Of the 300 questionnaires mailed out, 120 replies were tabulated. Most of the responses came from school people in the larger cities and the larger elementary schools. The predominating type of school has a kindergarten and grades one to six.

The schools replying quite generally practice what is though desirable in making administrative provisions for individual differences. The replies show that most school people realize the importance of providing for mental health, and there is almost complete agreement on what is thought desirable and what is practiced. Those replying express a consistent desire to keep children in the best physical health, although their practice is not up to their wishes.

Guiding social growth was checked by most as being both desirable and practiced. The degree to which these practices prevail remains uncertain. Access to many professional services is highly desirable, but most schools do not have the services they wish for. Schools seem to make good use of community resources. Home and school are usually quite in harmony in providing for the child. The principal has the major responsibility in filing and directing the use of data. About half of the replies favor an organization of guidance services within the school, but only one-fifth have such an organization. Criteria for evaluating the guidance program are regarded as very desirable, but a very small percent of the schools use them.

Conclusions

Eight conclusions are arrived at by the writer from this study:

1. Marked interest is being shown in the guidance of the elementary school. Principals and teachers throughout the nation commented on the questionnaire, usually favorably, and were interested in the results of the study.
2. The interest being manifested will, no doubt, result in some advances being made in the extension and improvement of guidance practices .
3. The teacher's mental health is to be considered in any program of guidance. The teacher's personal happiness and professional satisfaction are of prime importance. Only when teachers are happy in their work and are relaxed and free from negative administrative pressures can they contribute their best.
4. In all but a few of the larger districts, the classroom teacher does the guidance. Many of the questionnaire replies indicated that this is the accepted practice.
5. Some of the principals feel that the teachers are overloaded and should have additional help in providing guidance.
6. Because of lack of funds and the absence of special guidance personnel and other professional specialists, the principal of the elementary school must assume the major role in guidance.
7. It therefore follows that the principal must be trained in the guidance field in order to give the best possible type of leadership, but elementary school principals are generally not qualified by training to be the heads of guidance organizations.
8. There is confused thinking about guidance principles and practices as indicated by some of the comments made by the principals concerning their role in the guidance program of their schools.

Recommendations

The writer is convinced after many years of administering elementary schools and as a result of this study that the principal must be the leader and final authority in his school in guidance as well as in other educational matters. For the confusion that exists about guidance practices in the elementary school, the answer is not to limit the principal's authority, but to encourage him to become better trained for his task.

In order to achieve this end and to make elementary school guidance practices more effective, the writer makes eight recommendations. He has learned from this study that the needs implied by these recommendations exist and are recognized by many people in elementary school education and in the broad field of guidance.

1. Guidance principles for elementary schools should be formulated and given wide circulation, possibly by the Department of Elementary School Principals of the National Education Association.
2. The concept of proper classification of pupils which provides for individual differences and wholesome personal and social development should replace the idea of grade norms and expectancies as criteria for promotion.

3. A suggested pattern of organization of guidance in the elementary school should be proposed and receive wide circulation.
4. A set of evaluative criteria should be published along with a handbook for their proper use.
5. Guidance services should be extended to include all elementary school children and teachers.
6. Elementary school teaching loads should be reduced, and principals of all elementary schools should have adequate clerical and professional assistance.
7. Courses in guidance should be among those required for teaching and administrative credentials.
8. Colleges and universities should offer courses in elementary school guidance.

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Dr. Jean D. Grambs Honored

Included in the list of individuals awarded faculty fellowships for 1952–53 by the Fund for the Advancement of Education (Ford Foundation) was Dr. Jean D. Grambs, assistant professor of education, Stanford University. The award will permit her to spend the academic year in studying and observing work in her special field of interest in other colleges and universities. In making the award, Dr. Faust, president of the Fund, announced that the fellowship program is not intended to give support to research projects aimed at increasing the fund of knowledge in a given field, nor to provide for completion of doctorate study as such. The Faculty Fellowship Program, he pointed out, is based on the belief that a year devoted to study, research, observation, or experiment will renew and enrich the intellectual lives of the recipients of the awards and help them become better teachers. Dr. Grambs is a member of the State Advisory Council on Educational Research. In her absence, Dr. Lucien B. Kinney will represent Stanford University on the Council.

Difference in Academic Achievement Between Pupils Who Left and Pupils Who Entered Los Angeles High Schools, 1948-1950

HOWARD A. BOWMAN
Los Angeles City Schools

PROBABLY every school counselor has had the experience of meeting the eager parent of an enrolling pupil, who says, in effect, "My child should be advanced a grade because your schools are so much behind the schools back in Podunk." It is also likely that every counselor who has heard this plea has developed some sort of story by means of which he justifies his decision to enroll the pupil in the grade in which he belongs which often is not the grade in which the parent would have him placed.

Such a rationale developed by the counselor has served its purpose. It has been an adequate device, but adequate only in the absence of other evidence. This study was made in an effort to provide such other evidence. It must be remembered, however, that the counselor is still dealing with individuals. While the evidence presented by the study is such as to discount claims of 'Our schools back home were better,' it is still evidence based on averages, and the counselor, in dealing with individuals, may use the evidence of the study only as a basis for his further analysis of the individual pupil's record.

Sources of Data

In the spring of 1948, the Los Angeles City Schools contracted with Science Research Associates for the administration to all A-10 (Second semester, tenth grade) pupils of the *Iowa Tests of Educational Development.* Under the terms of the contract, the publisher undertook to report test results in three manners: (1) a report of the city-wide standing of

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Howard A. Bowman is supervisor of test construction in the Los Angeles City Schools, a position he has held for the past five years. His previous professional experience includes teaching, counseling, and serving as registrar. His collegiate training was taken at the University of Southern California where he received his Master's Degree in 1938. *Mr. Bowman's article is based on a paper which he presented at the* 1952 *regional conference of the American Educational Research Association in Los Angeles.*

pupils of this grade level; (2) a report of similar nature showing the status of each school; and (3) a report indicating the scores of each pupil on the nine tests of the battery, plus a composite score for tests one through eight, inclusive.

The titles of the nine tests of the *Iowa* battery are as follows:

Test 1. Understanding of Basic Social Concepts
Test 2. General Background in the Natural Sciences
Test 3. Correctness and Appropriateness of Expression
Test 4. Quantitative Thinking
Test 5. Interpretation—Social Studies
Test 6. Interpretation—Natural Sciences
Test 7. Interpretation—Literature
Test 8. General Vocabulary
Test 9. Use of Sources of Information

It should be pointed out that these tests are measures of the general education of high school pupils. The content of the tests is not confined to those items which may be learned in school, but encompasses the educational growth of the pupil from all sources.

Pupil scores are reported to the school in two forms, standard score and percentile. For the purpose of the present study, the standard score has been employed as an indication of pupil status. In this connection, it must be understood that the standard score for the composite of tests 1-8 is not a simple mean of the pupil's standard scores for each of the subtests involved. Rather, it is an entirely new score based on a distribution of the sums of raw scores for these tests.

In the spring of 1949, a similar contract was executed, this time calling for testing of all A-10 and A-11 pupils. It will be recognized that the A-11 group tested in the spring of 1949 should be substantially the same as the A-10 group originally tested as A-10's in the spring of 1948.

In the spring of 1950, a third contract was executed. Under the terms of this contract, all pupils from grade B-10 through A-12 were to be tested by means of the same instrument. Again, note that the A-12 pupils tested on this occasion were presumably the same pupils tested as A-10's in 1948 and as A-11's in 1949.

Limitations of Data

Although the intention was that of testing all pupils at the assigned grade levels during each testing period, the actual numbers tested fell somewhat short of this goal. One reason was that some schools were reluctant to use the instrument with pupils of low ability levels. Permission was granted to except those pupils whose IQ's fell below 76. This was done in most instances.

In addition during each testing period there were the usual numbers not included by reason of absence on one or more days of testing, or for other reasons. Moreover, from year to year there was some inconsistency in the lower limit of IQ used by certain schools to determine which pupils should not be tested. All of these items tend to reduce the apparent numbers enrolled in the respective classes, and to introduce some error in the computations involved.

Despite these shortcomings, it is possible to analyze the numbers of pupils tested, their scores, and more important, their identities, in such a manner as to shed some light upon the nature of the transient population in Los Angeles high schools, as well as upon the rate of 'drop-out' between the eighth month of the tenth grade and the seventh month of the twelfth grade.

Procedure

As a portion of the contract service, Los Angeles was provided, on the occasion of each testing program, with list reports. These list reports showed by school and by grade level, the name of each pupil tested, together with his IQ, chronological age, and standard score on each of the nine subtests plus the composite score on tests 1-8. It will be recognized that such complete listings provide the opportunity for a rather exhaustive analysis of the natures of the groups involved.

It was earlier indicated that in the spring of 1948 all A-10 pupils were tested. In the spring of 1949 all A-10 and A-11 pupils were tested. In the spring of 1950, all pupils from grade B-10 through grade A-12 were tested. Note that the pupils who were in the A-10 grade in the spring of 1948 would presumably be in the A-11 in the spring of 1949, and in the A-12 in the spring of 1950. It is thus possible to trace the same group through most of its high school career, and examine closely the changes in connection with the educational development of that group, as well as to determine the identity of the pupils who constituted that group.

The fact that some degree of transiency had existed was made obvious by an examination of the total numbers enrolled in this group at various points in its career, as follows:

A-10, 1948:	12,700	(estimate)
A-11, 1949:	11,500	"
A-12, 1950:	9,700	"

These figures, and a cursory examination of the list reports, made it obvious that there might be several different groups of pupils whose school progress could be observed with rewarding results. Because of the

large numbers of individuals involved, it was decided to simplify the study by concentrating on three groups, as follows:

1. The group itself, in its progress from A-10 to A-12, without reference to the individuals who constituted the group.
2. Those pupils who had appeared in 1948 as A-10's, but who did not reappear as A-12's in 1950.
3. Those pupils who appeared as A-12's in 1950, but who had not been members of the original 1948 group.

The identification of the individuals comprising these groups, in the case of groups 2 and 3, was the result of a rather laborious process. The list report for each school's group of 1948 A-10 pupils was checked against the list report of A-12 pupils for the same school in 1950. The A-10 list was pencil marked to indicate each pupil whose name did not reappear on the A-12 list. Similarly, the A-12 list was pencil marked to indicate the names of pupils who had not been in the original A-10 group.

When all list reports had been marked in this fashion, a 3″ x 5″ card was typed for each pupil. This card carried the following data:

1. Pupil name
2. Grade
3. School
4. I. Q.
5. Chronological age
6. *Iowa* test standard score

Cards were then alphabetized for each grade level group. That is, the A-10's were filed in alphabetical order and the A-12's were filed in alphabetical order. It was now possible to cross-check the two groups in order to pick up any further pupils who had been a part of the original group, but had not appeared as A-12's in the same school, yet who were still in a Los Angeles school, having transferred from one school to another subsequent to the dates upon which A-10's had been tested in 1948.

When the cards of these transfers had been removed, the remaining groups of cards were presumably 'pure' in that one group contained the data for all pupils who had been tested as A-10's in 1948, but who had not been tested as A-12's in 1950. The second group, of course, contained the cards of A-12 pupils of 1950 who had not earlier been tested as A-10's in 1948. Because of the fact, earlier noted, that some pupils had not been tested, for one reason or another, the groups of cards still contain some element of error, but it would not be possible to eliminate this error without detailed checking in the individual schools. The degree of error, however, is relatively small. In 1948, 11,120 pupils were tested, representing 87.6% of the estimated A-10 enrollment. In 1950, 9,529 A-12 pupils were tested, representing 98.2% of the A-12 pupils enrolled. It is assumed, therefore, that these data are sufficiently complete for all practical purposes.

Findings

A. Members of the A-10 Group Tested in 1948 Who Did Not Appear as A-12 Testees in 1950. The original A-10 group tested in 1948 consisted of 11,120 pupils. The 'drop-out' group, i.e., those members of the original 11,120 who did not appear as A-12 testees two years later, numbered 3,825. This figure constitutes 34.58% of the total group originally tested. Since the A-10 pupils not tested in 1948 were largely those whose IQ's were 75 or lower, and since such pupils tend to leave high school prior to graduation in larger numbers than do pupils whose IQ's are higher, it may be assumed that the 34.58% figure is somewhat conservative as an estimate of the proportion enrolled in the tenth grade who would fail to graduate from the same high school. Data for the total group of A-10 pupils tested in 1948, as well as for the 'drop-out' group, are shown in Table I.

TABLE I

A COMPARISON OF CHRONOLIGICAL AGE, INTELLIGENCE QUOTIENT, AND ACHIEVEMENT TEST DATA BETWEEN 11,120 A-10 PUPILS TESTED IN MARCH, 1948, AND 3,845 PUPILS WHO WERE ORIGINALLY MEMBERS OF THIS GROUP, BUT WHO WERE NO LONGER ENROLLED AS MEMBERS OF THE GROUP IN APRIL, 1950

	Original Group	'Drop-Out' Group	Difference
Chronological age	15-10	16-3	0-5
Intelligence Quotient	102.0	99.2	2.8
Mean Scores on *Iowa Tests of Educational Development*			
Test No. 1	14.4	12.3	2.1
Test No. 2	12.4	11.0	1.4
Test No. 3	12.8	11.0	1.8
Test No. 4	12.4	10.2	2.2
Test No. 5	13.8	12.2	1.6
Test No. 6	14.0	12.0	2.0
Test No. 7	14.3	11.3	3.0
Test No. 8	16.3	14.5	1.8
Composite, Tests 1-8	14.1	12.0	2.1
Test No. 9	13.9	11.9	2.0

B. Members of the A-12 Group Tested in 1950 Who Had Not Appeared as Members of the Original A-10 Group Tested in 1948. The group of A-12 pupils tested in 1950 consisted of 9,529 individuals, of whom 2,124, or 22.29% were pupils who had not been tested as members of the original A-10 group in 1948. Note that the 9,529 pupils tested represented over 98% of the A-12 enrollment. Data for these pupils are shown in Table II.

TABLE II

A COMPARISON OF CHRONOLOGICAL AGE, INTELLIGENCE QUOTIENT, AND ACHIEVEMENT TEST DATA BETWEEN 9,529 PUPILS WHO WERE TESTED IN GRADE A-12 IN APRIL, 1950, AND 2,124 PUPILS WHO WERE IN GRADE A-12 IN 1950, BUT WHO HAD NOT BEEN MEMBERS OF THAT GROUP IN MARCH, 1948

	Total Group	New Group	Difference
Chronological Age	17-9	18-0	0-3
Intelligence Quotient	103.6	101.3	2.3
Mean Scores on *Iowa Tests of Educational Development*			
Test No. 1	19.4	15.2	4.2
Test No. 2	15.7	14.7	1.0
Test No. 3	16.9	15.7	1.2
Test No. 4	14.8	14.2	0.6
Test No. 5	18.0	16.8	1.2
Test No. 6	17.1	15.6	1.5
Test No. 7	17.4	15.9	1.5
Test No. 8	19.0	17.8	1.2
Composite, Tests 1-8	18.3	17.0	1.3
Test No. 9	18.2	16.0	2.2

Interpretation of Data

A. Differences in Number. It was noted that the original A-10 group consisted of approximately 12,700 pupils, of whom 11,120, or 87.6% were tested. It was also indicated that those pupils not tested were largely pupils whose IQ's were relatively low, and who would hence tend to become overage and leave school prior to graduation. For the purpose of this analysis, it will be assumed that the 11,120 pupils tested constitute the entire class, it being noted that any proportion of this figure found to have left school prior to graduation will probably be smaller than the actual proportion leaving school prior to graduation.

Of the 11,120 pupils tested, 3,825 or 34.58% did not reappear as A-12's two years later. In their stead had been enrolled 2,124 pupils who had not been members of the original class. The difference between these figures, 1,701, represents the net loss from the original group. This number is 15.3% of the original A-10 enrollment and represents a minimal estimate of the high school drop-out proportion. The figure is minimal for three reasons. First, as pointed out above, pupils of low ability, who tend to drop out more frequently than do pupils of higher ability, were often not included. Second, there would undoubtedly have been some proportion of drop-out during the tenth grade, but prior to the eighth month, during which the tests were administered. Third, there would probably have been some drop-out in the twelfth grade during the eighth, ninth, and tenth months, after administration of the

tests. In this connection, it may be noted that a comparison of the total estimated enrollments for grade A-10 in 1948 and grade A-12 in 1950 indicates a loss of 23.6%.

B. Differences in Chronological Age and Capacity. As indicated in Table I, the A-10 pupils who left school subsequent to the March, 1948 testing, exhibited some differences in chronological age and capacity when compared with the total group. These 'drop-out' pupils were, on the average, five months older than the total group, thus indicating a chronological retardation of one semester. The average intelligence quotient was 2.8 points lower than was the average for the class as a whole.

Table II presents comparable figures for the late entering group. These boys and girls were three months older, on the average, than were the members of the A-12 class, and in intelligence quotient they were 2.3 points lower than the average of the entire group.

C. Differences in Achievement. Differences in achievement are again indicated in Table I and Table II. In the case of the A-10 class we find that the 'drop-out' group is behind the class as a whole, with the differences in standard scores ranging from 1.4 to 3.0. Perhaps the best single measure is that provided by the score for the composite of tests 1-8, and on this basis the drop-out group is 2.1 standard scores behind the class as a whole. This deficit in achievement would indicate a retardation of approximately one year when translated into grade placement values.

The group which entered subsequent to the original testing also exhibits a lower achievement than does the total group of which it a part. Table II shows that the differences range between 1.2 and 4.2 standard scores, with the composite showing 1.3 standard scores difference, a retardation in achievement of approximately seven months.

Conclusions

Unfortunately, a clear-cut statistical interpretation is not possible due to the absence of certain essential data. For the purposes of the study, however, interpretation by inspection is sufficient. The following facts may be gleaned:

1. About 35% of the pupils who were in grade A-10 in March 1948 had left Los Angeles City Schools by April 1950.
2. These leavers had been replaced to a limited extent by other pupils who had not previously been enrolled in Los Angeles high schools.
3. The net loss over this two year period amounts to at least 15.3% of the original group.
4. This is a minimal loss figure. The actual loss figure is probably in the order of 24%.
5. Both the 'drop-out' group and the late-entry group are retarded chronologically, are lower in IQ, and are retarded in achievement when compared with the total class groups of which they are members.

6. The achievement retardation in the case of the 'drop-out' group represents about one full school year. In the case of the late-entry group this retardation is in the amount of about six or seven school months.
7. This difference noted in (6) is probably no real difference, since the apparent increase in achievement of the late-entry group in all probability represents rather a decrease in loss of achievement due to the fact that the group would no longer contain many of its less able members.
8. There is no evidence to indicate that, on the average, pupils who have left 'the schools back home' and come to Los Angeles are any better prepared than those who have been here all the time. Rather, the data appear to indicate that transient pupils, whatever their origin, tend to be older, less able, and lower in achievement than permanent pupils.

School authorities in Jacksonville, Illinois, long concerned with community feelings about local education, decided to find out what parents thought about their schools and teachers. A questionnaire sent to 1,500 families showed that Jacksonville parents gave maximum emphasis to the need for better personal adjustment of their children. Answering one question on what the school should do more about, parents asked for: (1) more emphasis on teaching children to get along with each other; (2) more study on how to use money wisely; and (3) more teacher study of abilities, aptitudes, and interests of children as a basis of helping pupils choose their life work. Of those queried, 84 per cent felt that the school should try to help children with social problems met in everyday life. When asked if school services should be cut or taxes raised, 61 per cent of the parents declared for increased taxes. Only 6 per cent wanted to see services cut.

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motivational in nature, it seems as important for the instructor to measure this variable as it is for him to use more traditional methods to measure gain in knowledge.

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Certain Relationships Between the Kuder Preference Record and the Minnesota Multiphasic Personality Inventory

CHARLES W. BURSCH, II
University of California at Davis

Problem

It has been shown that the *Kuder Preference Record,* Vocational, Form C, can be used as a selection device where a homogeneous group of students is desired. The basic research on this phase of the problem was presented as a report given at the Chico meeting of the California Educational Research Association in 1951. This paper is an extension of the Kuder project into the area of adjustment and its relationships to homogeneity of interest pattern.

The experimental group consisted of 85 clients tested in the Guidance Center, University of California at Davis, during the school years 1949–50, 1950–51, and the first semester of 1951–52. This group was composed of all students who had taken both the *Kuder Preference Record* and the *Minnesota Multiphasic Personality Inventory* as a part of their guidance procedures. There were 59 males and 26 females, with an age range from 15 to 48 (Median — 21), and with school status from freshman through graduate student.

The hypothesis was that those individuals whose *Kuder* profiles were most characteristic would show the least amount of maladjustment, and that the reverse was also true. This hypothesis was based on the assumption that *M.M.P.I.* scores are valid measures of adjustment.

The following procedure was established: (1) *Kuder* results were expressed in percentile scores; (2) following the procedure indicated by the author, all scores at or above the 75th percentile were recorded as "+," while all scores at or below the 25th percentile were recorded as "—"; (3) *M.M.P.I.* results were expressed in T-Scores; (4) following the procedure indicated by the authors, all scores at or above 55, but below 70, were recorded as "+"; all scores at or above 70 were recorded as

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Charles W. Bursch, II, is supervisor of testing and guidance, and lecturer in education at the University of California, Davis. Before going to Davis four years ago, he had taught in the high schools at Sacramento and Westwood, California. Mr. Bursch is a doctoral candidate at Stanford University.

"++"; all scores at or below 45, but above 30, were recorded as "—"; and all scores at or below 30 were recorded as "——"; (5) by observation, the number of pairs associated with each *Kuder* category was determined, and frequency tables prepared; (6) based on the frequency tables, rank orders were established.

Data

Notes: (a) *Kuder* categories in the tables will be referred to in the following manner: Outdoor – 0, Mechanical – 1, Computational – 2, Scientific – 3, Persuasive – 4, Artistic – 5, Literary – 6, Musical – 7, Social Service – 8, and Clerical – 9; (b) Rank differences where the volume of significant *M.M.P.I.* scores is greater than proportional carry the prefix "+," while rank differences less than proportional carry the prefix "—."

TABLE I

SIGNIFICANTLY HIGH KUDER SCORES

Kuder Category	Percentage	Rank Order
0	23.52	1
8	14.28	2
3	10.50	3.5
7	10.50	3.5
5	9.66	5
6	9.24	6
4	8.40	7
1	7.98	8
2	4.20	9
9	1.68	10

TABLE II

SIGNIFICANTLY LOW KUDER SCORES

Kuder Category	Percentage	Rank Order
9	25.00	1
2	18.85	2
1	9.83	3
4	9.42	4
3	7.78	5
7	7.37	6
5	6.96	7.5
6	6.96	7.5
8	5.73	9
0	2.04	10

TABLE III

KUDER CATEGORIES ASSOCIATED WITH M.M.P.I. SCORES OF BOTH HIGH AND VERY HIGH SIGNIFICANCE

Kuder Category	Percentage	Rank Order
9	13.34	1
0	12.91	2
2	11.28	3
8	10.24	4
7	9.38	5
3	9.11	6
4	8.81	7
1	8.78	8
6	8.08	9
5	8.01	10

TABLE IV

RANK DIFFERENCES BETWEEN KUDER (SIGNIFICANTLY HIGH) AND M.M.P.I. (HIGH AND VERY HIGH SIGNIFICANCE)

Kuder Category	Plus Rank	M.M.P.I. Rank	Difference
0	1	2	−1
1	8	8	0
2	9	3	+6
3	3.5	6	−2.5
4	7	7	0
5	5	10	−5
6	6	9	−3
7	3.5	5	−1.5
8	2	4	−2
9	10	1	+9

TABLE V

RANK DIFFERENCES BETWEEN KUDER (SIGNIFICANTLY LOW) AND M.M.P.I. (HIGH AND VERY HIGH SIGNIFICANCE)

Kuder Category	Minus Rank	M.M.P.I. Rank	Difference
0	10	2	+8
1	3	8	−5
2	2	3	−1
3	5	6	−1
4	4	7	−3
5	7.5	10	−2.5
6	7.5	9	−1.5
7	6	5	+1
8	9	4	+5
9	1	1	0

Computation I: Take the *Kuder* Categories which were significantly high or low in 10% or more of the cases, and secure the algebraic sum of the differences in rank order. (—8)

Computation II: Take the *Kuder* Categories which were significantly high or low in 8% or less of the cases, and secure the algebraic sum of the differences in rank order. (+16)

It is to be noted that in Table I the five most frequently found categories contain 63.46% of the cases and the four most frequently found categories contain 58.80%. Similar computations from Table II show that dislikes fall into an even more characteristic group, the total at the five category level being 70.88% and at the four category level being 63.10%. From this it may be concluded that certain likes and dislikes, as measured by the *Kuder*, are typical of the experimental group. Table III ranks the various *Kuder* categories on the basis of the volume of significant *M.M.P.I.* scores found in association with the significant *Kuder* scores in that category. From this table we can determine which *Kuder* categories produce the greatest evidences of disturbance. Table IV and Table V show differences in rank order between *Kuder* and *M.M.P.I.* If volume of *M.M.P.I.* scores was governed by chance, individual variation in rank order would tend to disappear, but both Table IV and Table V show that in certain categories rank variation exists. From this we can conclude that some factor is operating as a variable. To determine if conformity to the group interest pattern was affecting the volume of *M.M.P.I.* scores and thus adjustment, Computations I and II were performed. If no relationship existed, the predicted result of the computations would be zero. Computation I shows that this particular degree of conformity produces a result indicating a less than expected volume of *M.M.P.I.* scores, and thus a greater than predicted amount of adjustment. Computation II shows that this particular degree of lack of conformity produces a result indicating a greater than expected volume of *M.M.P.I.* scores, and thus a greater than predicted amount of maladjustment.

Conclusions

1. The experimental group has a characteristic profile on the *Kuder Preference Record, Vocational,* Form C.

2. Conformity to the pattern of tested interests is associated with less than the expected amount of disturbance as measured by the *Minnesota Multiphasic Personality Inventory.*

3. Non-conformity to the pattern of tested interests is associated with greater than the expected amount of disturbance as measured by the *Minnesota MultiPhasic Personality Inventory.*

4. The hypothesis is supported by the data.

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Comprehension of Words With Multiple Meanings

AGNES L. GAMMON
Los Angeles City Schools

Our modern way of life with its complexities has made at least a minimum amount of reading with understanding a necessity. Reading has opened many social, educational, occupational, and spiritual opportunities to individuals. The techniques and materials used in teaching reading have been continually changing as educators have sought, and continue to seek, more scientific and effective techniques and materials. Because life is everchanging, because individuals differ so greatly, and because reading is a tool so necessary to successful living, reading offers problems without end to educators.

Purpose of Study

There are many words in the English language with multiple meanings. This is true at the primary level as well as all other levels. The purpose of this study was threefold: (1) to identify these words with their various meanings as they are found in reading textbooks for the first, second, and third grades; (2) to determine through tests some of the problems children have in reading and understanding these words; and (3) to suggest some techniques to aid in teaching words with multiple meanings.

The development of reading materials from pictures to printed symbols has been paralleled with a development of methods in teaching reading from word-calling to thought-getting. Words are more than symbols. Dolch wrote a clear, concise statement concerning the number of words with multiple meanings:

> In the English Language a very great proportion of all the symbols used either for speech or writing have more than a single meaning. Of course technical words, especially those created by sciences, often have only a single possible use.
>
> Just the opposite, however, is true of the words which are used most in the ordinary affairs of life.[1]

[1]Dolch, Edward William, *Reading and Word Meanings*, (Boston: Ginn and Company, 1927), p. 2.

Agnes Leona Gammon is a fourth grade teacher in the Los Angeles City Schools. She received her M. A. degree at the University of Southern California in 1950. This article is a digest of her master's thesis.

He supports this statement with a chart which shows how 536 words taken from five books of a school reader series had 1,358 meanings (2).

Procedure

A review of textbooks used at the primary level was made and three were selected on these factors: vocabulary range, popularity of the books, frequency of use, the author's qualifications as an educator, and the degree of ease with which the books could be read because of content and the manner of presenting the content. The three selected were *The California State Series* by Nila Banton Smith; *Basic Readers: Curriculum Foundation Series* by William S. Gray; and *Easy Growth in Reading Series* by Gertrude Hildreth and Associates.

The books were checked for words with multiple meanings. A separate card file was made for each grade level. The words were listed with a portion of the sentence to indicate the meanings used in the texts. Homonyms were not included.

The number of spellings and the number of meanings for each list were counted and the following approximate figures were determined.

Grade	Word Spellings	Word Meanings
First	50	180
Second	90	140
Third	149	600

Not all the words with multiple meanings were listed because some words were used with only one of the meanings in the textbooks. However, the length of the list certainly makes clear the large number, and the frequency of the words was evident by the repetitions in the three series.

Tests were constructed which required the children to check pictures with different types of marks to indicate the meaning in the directions given below the pictures. The written directions were devised with repetition in the wording to make following directions less difficult, thus emphasizing the understanding of meanings. Instructions used were:

Put an X on_____
Put an O on _____
Put a ring around_____
Put a dot on_____
Put a line under_____
Put two lines under_____

[2] *Ibid.*, p. 6.

The words were arranged by the number of meanings and by the assumed degree of difficulty; the easier and those with two meanings first, followed by the more difficult and those with a greater number of meanings. Most of the words tested had only two or three meanings. An effort was made to keep the accompanying vocabulary at the grade level for which it was prepared.

Of course, not all the words could be used, nor was it necessary to find out what this study was checking. Twenty-four words with 66 meanings were included in the first grade test. Thirty-six words with 100 meanings were included in the second grade test. Forty-eight words with 123 meanings were included in the third grade test.

The word lists were studied and words that were easiest to picture were chosen. This put the emphasis on understanding word meanings in their simplest form. Pictures were drawn to fit the directions and then some additional pictures that did not fit, but with similarity enough to make it a test, were mixed with the correct ones.

The pictures were made in clear lines with not much detail to detract from the purpose of the test. The size of the picture was made suitable to the primary level. The directions for the first and second grade tests were typed with a large primary typewriter; a somewhat smaller type was used for the third grade test.

The tests were given to selected children. At the first and second grade levels, no reading scores were available; the teachers of several rooms selected what they considered to be their best readers and their average readers. No slow readers were tested. Forty children from two A-1 classes and 55 children from two A-2 classes were tested. At the third grade level, 80 children were selected from four classes who had reading scores of 2.0 or better, based on the *Gates Advanced Primary Reading Tests.*

The tests were given by one person to eliminate differences in administration. The usual techniques for testing were observed. No attention was drawn to the fact that the words tested were those with multiple meanings. The children were encouraged to ask about any word they did not know because it was not a test of their ability to recognize words. No time limit was set.

Pupil Reactions

Individual differences were noted while the tests were being given. Some children. applied themselves and showed good work habits, while others dawdled and looked at the pictures. Some displayed a sense of humor and seemed to enjoy playing the game. A few failed to follow the directions and it was necessary to discard their tests. A very few mentioned that the words were the same, but had different meanings. Two

children were emotionally insecure and cried because they were afraid they could not do it. With a little individual attention and assurance, both were able to finish. A few were inclined not to ask for words they did not know. As a whole, the children were an excellent experimental group because of their whole-hearted cooperation.

Test Results

The tests were scored and tabulated in several ways. At the first grade level the children's scores ranged from twenty-four to 58 out of the possible sixty-six. The 35 meanings that were best understood were correctly marked by 31 of the 40 children. The understanding of the remaining 31 meanings decreased markedly.

At the second grade level the scores of the 55 children tested ranged from 43 to 96 out of a possible 100. The first 40 word-meanings were were answered correctly by 46 of 55 children. The understanding of the remaining 60 meanings decreased quite rapidly.

At the third grade level 80 children were tested for their understanding of 123 word meanings. Their scores ranged from 51 to 112. The first 63 word meanings were answered correctly by 61 children. The understanding of the other 60 meanings decreased quite rapidly. Below is a portion of a table for the third grade showing how the results were tabulated.

Words with multiple meanings	Number of correct answers	Words with multiple meanings	Number of correct answers
Animal's *trunk*	61	*Duck*	70
Trunk (luggage)	59	*Duck* (dodge)	29
Tree *trunk*	58	*Bridge*	47
Left hand	71	*Bridge* of a ship	33
Cake *left*	65	*Cunning* acting	10
Left behind	69	*Cunning* looking	17

When these scores were compared with I.Q. and reading scores, a positive correlation was noted.

Summary

Lists of words with multiple meanings used in the reader series were established and in sufficient number to be considered in the problem of teaching reading comprehension. The wide range of scores supported the existence of the problem.

At the first grade level, there was a possible score of 2,640 correct answers (the 66 meanings multiplied by the 40 children tested). The total number of correct answers was 1,868, which shows that one-fourth of the possible answers were incorrect. For the second grade almost one-third of the answers were incorrect. The third grade had over one-fourth incorrect responses.

The test results showed, at all three levels, that the children who scored in the upper one-third of the participants were closely grouped. Below this group, the drop in scores was rapid. The conclusion was drawn that these children who scored high had had a richer background of experience.

In most cases the findings showed that the errors made were grouped after a few words rather than a smattering of errors for each word.

"A really thoroughgoing piece of research into all phases of the teacher shortage is an imperative. Such a survey should explore all phases of the matter — economic, social, and psychological — and to attempt to uncover the root causes. It should also be prepared to make concrete recommendations that would serve to break the continuing 'log jam.' Among other things, the survey should inquire into the declining ratio of men teachers in elementary classrooms and the extent to which the decline is affecting the quality of elementary education." — (Excerpt from the Annual Report of the U. S. Office of Education, 1951, page 21)

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5. This experiment lends further support to the use of the *Kuder Preference Record, Vocational,* Form C, as an aid in the production of homogeneous groups, and indicates that such groups make a positive contribution to adjustment.

6. This experiment indicates that those traits being measured by the *Kuder Preference Record, Vocational,* Form C, are significant factors in the emotional life of the subjects.

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Research News and Views

At a special session called by Governor Warren last August, the California State Legislature recognized the need for State school building aid by appropriating $20 million from the General Fund. It also referred to the people for approval at the November general election a constitutional amendment providing an additional $185 million. The latter sum, to be financed through state bonds, will be loaned to school districts that have reached their own bonding capacity. The legislative appropriations were based on the first state report of the "California School Facilities Survey" conducted by the State Department of Education in cooperation with the U. S. Office of Education. The survey revealed the school plant needs and financial resources of districts unable to meet their needs.

* * * * *

The first of a series of annual regional conferences on testing problems was held last April in Los Angeles. Sponsored by the Educational Test Service, the 1952 conference considered methods and techniques for applying tests to the solution of problems current in American education. Dr. Francis L. Bacon of the University of California at Los Angeles served as conference chairman. Some 70 persons attended the Los Angeles meeting. A report of the Conference on Testing Problems has been sent to those who participated.

* * * * *

The American Association of Colleges for Teacher Education has advised its member colleges in Arkansas that it considers unsound and even dangerous the proposed statewide teacher education program sponsored by the Fund for the Advancement of Education of the Ford Foundation. A grant in aid under this plan calls for establishing as the teacher education curriculum in all Arkansas colleges a four-year program of general education to be followed by a year of professional internship. The AACTE maintains that the Arkansas proposal assumes that there is a dichotomy between general education and professional education (for teachers). It rejects the divisive point of view, and points out the danger of having a state's educational system dominated by a central agency, whether governmental or private. The full resolution of the AACTE was published in the *Newsletter* of the National Commission on Teacher Education and Professional Standards, March 15, 1952.

* * * * *

The Fourth Annual State Conference on Educational Research was held on November 7 and 8, 1952, at the Leamington Hotel, Oakland, California. The Conference, sponsored by the State Advisory Council on Educational Research and the California Teachers Association, was built around the theme "Improving Our Schools: Challenges to Research." The program included three addresses, two symposiums, and seven section meetings. A report of the conference will be published by the California Teachers Association.

* * * * *

A recent statewide survey of pupil reporting practices in California county schools reveals a continued reliance on the formal report card as a medium of informing parents. However, some newer practices are coming into popular use. Of the 54 (out of 58) counties reporting, 45 indicated at least some use of letters to parents as a supplement to the report card. In like manner, parent-teacher conferences seem to be growing in popularity, being practiced to some extent in 52 counties. Although the trend, according to the survey, seems toward the use of new techniques in reporting pupil progress, there appears to be no immediate danger of complete extinction for the formal report card. In only four counties have parent-teacher conferences replaced the report card, while 21 counties reported a growing tendency to use the conferences in lieu of report cards.

* * * * *

Movies, TV, comics, and radio wield a strong influence upon the child, but their effect is determined in large part by the child's own personality. These media cannot be approved or condemned on a wholesale basis. These views are expressed in the booklet, *Your Child and Radio, TV, Comics, and Movies*, by Paul Witty and Harry Bricker. The 48 page pamphlet is one of a series published by Science Research Associates.

* * * * *

The California State Department of Education has issued a report of a two-year study of rural life and education in California. Financed by the Rosenberg Foundation and conducted by Mrs. Faith Smitter, formerly consultant in rural community education and now director of guidance for the Santa Barbara County Schools, the report, *Needs of Rural Children and Youth in California*, discusses the diversity of rural life in California and calls attention to the major problems of rural education. Approaches to the study of these problems are suggested and examples are drawn from various representative communities.

* * * * *

Book Reviews

Teaching-Learning Theory and Teacher Education, 1890-1950

Walter S. Monroe. University of Illinois Press, 1952. 426 pages.

This is a very human volume on a timely subject. While theoretically it may belong under the history of education, practically it is more than an account of evolving educational thought and practice over a sixty-year period. The author does not stop with a chronological narration. He pauses at frequent intervals, appraises the trends, and interprets the meaning of the developments. The book is more than a chronicle; it is an interpretive synthesis.

The volume is divided into three parts: the development of teaching-learning theory, the evolution of teacher-education purpose, and the growth of practices in teacher-education. Each area is dealt with chronologically from 1890 to 1950. The author's viewpoint is trained, patient, and fair. He apparently had no intention of writing a dramatic book, but he unquestionably deals with dramatic issues. Irresistibly he has been pulled into the midst of arguments, controversies, and sharp debates. While describing the issues objectively, he gives the reader an insight into the personalities of the controversies; hence some passages are tinged with a dramatic flavor. While the major part of the discussion is directed toward teacher education, that topic is so inclusive that the reader will sense he is reading what is essentially a history of education of the past sixty years.

Any reader who peruses this carefully documented and clearly written volume should derive several fundamental values: (1) he will inevitably qualify his own ideas concerning most of the important concepts in modern education; (2) he will renew and extend his knowledge of nearly every recognized educator of the last sixty years; (3) he will identify the great issues of education, not only for this period, but for all time; (4) he will emerge with at least a partially formed concept of what he believes about the critical issues that have engaged the attention of American educators; and (5) he will appreciate the slow and painful process by which theories and proposals are tested and modified in the crucible of practical application. While this book was not written for popular consumption, every serious educator will find in the reading of it a heartening and rewarding experience.

Studying Students: Guidance Methods of Individual Analysis

Clifford P. Froelich and John G. Darley. Chicago: Science Research Associates, 1952. 411 pages.

This book, according to the publishers, is designed to help guidance workers learn the best techniques of individual counseling and to employ them most effectively. It approaches the task of understanding students from the viewpoint that it is necessary and desirable that information be collected by a variety of methods, and in at least seven areas of a student's life. Collecting and interpreting data in each of these areas demands that teachers and counselors have an understanding of statistical concepts, hence two chapters are included on statistical methods. Because test scores can be interpreted properly only in a context of information about the student, the accepted non-test means of obtaining data are discussed in considerable detail in the book.

The book was prepared by two nationally recognized authorities in the field of guidance and counseling. It should prove to be valuable for use in teacher education institutions where guidance personnel are prepared. It will have value also for any teacher who has some responsibility for working with individual students.

* * * * *

Adolescence

Marguerite Malm and Olis G. Jamison. New York: McGraw-Hill Book Co., 1952. 512 pages.

A thoughtful, clearly written book for teachers and those engaged in adolescent supervision. It is designed to help adults in their relationships with the adolescent, to help them understand what the adolescent needs to live wholesomely and happily, and to show them how these needs may be met. The book is divided into three sections: (1) "Introducing the Adolescent" which tells who the adolescent is, why we should study him, and what the world of the adolescent is like; (2) "The Adolescent and His Adjustment" which considers each aspect of the adolescent's adjustment — the physical, the heterosexual, the social, the emotional, the spiritual, the mental hygiene, and the vocational; and (3) "Major Influences on the Adolescent" in which the home, the community, and the school are considered in their relationships with the adolescent.

The book is well illustrated and contains an abundance of research data. At the end of each chapter is an extensive array of classroom aids, suggestions for panel discussions, a list of movies applicable to the chapter, a list of pertinent books, and a list of up-to-date periodical references.

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